ARTICLE 3. CONSTRUCTION SITES - FUGITIVE DUST

4-3-160. General Provisions – West Pinal PM10 Nonattainment Area

A. Intent, Applicability, general requirements and exemptions

1. Intent

This Article focuses on fugitive dust emissions from process activity, site activity and a lack of adequate surface stabilization, all associated with construction.

2. Effective Date

The rules in this Article adopted on January 25, 2023 will become effective on June 1, 2023. The rules in this Article that became effective on January 1, 2016 will remain in effect through May 31, 2023.

3. Geographic Scope

The rules in this Article shall be effective throughout the West Pinal County PM₁₀ Serious Nonattainment area as defined in 40 CFR Part 81.303.

4. General Requirements:

- a. Any person engaged in a dust-generating operation subject to this rule shall be subject to the standards and/or requirements of this rule before, after, and while conducting such dust-generating operation, including during weekends, after work hours, and on holidays.
- b. For the purposes of this rule, any control measure that is implemented must achieve the applicable standard(s) described in this rule, as determined by the corresponding test method(s), as applicable, and must achieve other applicable standard(s) set forth in this rule.
- c. Control measures are described in section 4-3-180.I of this rule. Regardless of whether a dust-generating operation is in compliance with an approved Dust Control Plan or there is no approved Dust Control Plan, the owner and/or operator of a dust-generating operation shall be subject to all requirements of this rule at all times.
- d. Failure to comply with the provisions of this rule, as applicable, and/or of an approved Dust Control Plan, shall constitute a violation.

5. Exemptions

The following are exempt from this Article, or portions of this Article:

- a. The application and permit requirements of this Article shall not apply to any facility operating under authority of a permit issued pursuant to ARS §\$49-426 or 49-480, however, any dust generating operations are subject to the requirements of \$4-3-180 sections C through N.
- b. In the case of an emergency, action may be taken to stabilize a dust generating operation or disturbed surface area before submitting a dust generating operation application form. Upon stabilizing the emergency situation, a dust generating operation application form shall be submitted.
- c. In the case of legitimate vehicle test and development facilities and operations conducted by or for an equipment manufacturer, where dust is required to test and validate the design integrity, product quality and/or commercial acceptance, those specific activities shall be exempt from the application, permit and applicable standards in section §4-3-180 under this Article.
- d. The application and permit requirements of this rule shall not apply to road maintenance activities, however, any dust generating operations are subject to the requirements of §4-3-180 sections C through N.
- e. The application and permit requirements shall not apply with respect to dust generating operations associated with the emergency repair of utilities.
- f. Establishment of initial landscapes without the use of mechanized equipment, conducting landscape maintenance without the use of mechanized equipment, and playing on or maintaining a field used for non-motorized sports are exempt from the application, permit, and standards in section §4-3-180 of this Article. However, establishing initial landscapes without the use of mechanized equipment and conducting landscape maintenance without the use of mechanized equipment shall not include grading, or trenching performed to establish redesign initial landscapes or to existing landscapes.
- g. The provisions of this rule shall not apply to the following non-traditional sources of fugitive dust that are located at sources that do not require any permit under these rules. These non-traditional sources of fugitive dust are subject to the standards and/or requirements described in Chapter 4, Article 1:
 - 1) Vehicle use in open areas and vacant lots
 - 2) Open areas and vacant lots
 - 3) Unpaved parking lots
 - 4) Unpaved roadways (including alleys)
 - 5) Erosion-caused deposition of bulk materials onto paved surfaces
 - 6) Easements, rights-of-way, and access roads for utilities (transmission of electricity, natural gas, oil, water, and gas).

i. Emergency maintenance of flood control channels and water retention basins if all control measures, as specified in the permit are implemented, applied, and maintained

[Adopted October 28, 2015, effective January 1, 2016. Amended January 25, 2023, Amended January 25, 2023, effective June 1, 2023]

4-3-170. Definitions

See Chapter 1, Article 3 (General Provisions and Definitions) of this code for definitions of terms that are used but not specifically defined in this Article.

- 1. "AREA ACCESSIBLE TO THE PUBLIC", as used in this Article, means any paved parking lot or paved roadway that can be entered or used for public travel primarily for purposes unrelated to the dust generating operations.
- 2. "BLOCK PERMIT", as used in this Article, permit applicable only to Political subdivisions, Public Utility Corporations regulated by the Arizona Corporation Commission or Contractors or subcontractors for Political subdivisions or Public Utility Corporations and issued only for dust generating operations associated with the following:
 - a. Maintenance of existing underground or above-ground lines
 - b. Effecting end-user connections, including but not limited to water connections, sewer connections, natural gas connections, electrical power connections, and communication connections;
 - c. Underground utility line extensions not exceeding 500' in length;
 - d. Overhead utility line extensions;
 - e. Expansion or extension of paved roads, unpaved roads, road shoulders, and/or alleys and public right of ways at non-contiguous sites.
- 3. "BULK MATERIAL" as used in this Article, means any material including but not limited to earth, rock, silt, sediment, sand, gravel, soil, fill, aggregate less than 2 inches in length or diameter, dirt, mud, demolition debris, trash, cinders, pumice, saw dust, and dry concrete, which are capable of producing fugitive dust at an industrial, institutional, commercial, governmental, construction and/or demolition site.
- 4. "BULK MATERIAL HANDLING, STORAGE AND/OR TRANSPORTING OPERATION" as used in this Article, means the use of equipment, haul trucks, and/or motor vehicles, including but not limited to, for the following activities that are capable of producing fugitive dust: loading, unloading, conveying, transporting, piling, stacking, screening, grading, or moving of bulk materials.
- 5. CONSTRUCTION as used in this Article means building, maintaining or modifying a capital improvement resting upon, connected to or buried in the earth. Construction includes, but is not limited to, vertical construction, residential construction, installing underground utilities, installing above-ground utilities, and building physical infrastructure including roads, highways, railways, flood structures, drainage works and irrigation works. Notwithstanding any other exemption under these rules, weed abatement by discing or

- blading and conducted for the purpose of enabling Development Activity or maintaining a work site shall qualify as construction.
- 6. "CONTROL MEASURE" as used in this Article means, a preemptive or concurrent technique, practice, or procedure used to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust at a work site in order to comply with applicable standards in section §4-3-180. Control measures include but are not limited to:
 - a. Curbing;
 - b. Paving;
 - c. Pre-watering;
 - d. Apply dust suppressant in sufficient quantity and frequency to maintain a stabilized surface;
 - e. Physically stabilizing with vegetation, gravel, recrushed/recycled asphalt or other forms of physical stabilization;
 - f. Limiting, restricting, phasing and/or rerouting motor vehicle access;
 - g. Reducing vehicle speeds and/or number of vehicle trips;
 - h. Limiting use of off-road vehicles on open areas and vacant lots;
 - i. Utilizing work practices and/or structural provisions to prevent wind and water erosion onto areas accessible to the public;
 - j. Appropriately using dust control implements;
 - k. Installing one or more grizzlies, gravel pads, and/or wash down pads adjacent to the entrance of an area accessible to the public to control carry-out and trackout;
 - 1. Keeping open-bodied haul trucks in good repair, so that spillage may not occur from beds, sidewalls (i.e. freeboard), and tailgates; and
 - m. Covering the cargo beds of haul trucks to minimize wind-blown dust emissions and spillage
- 7. "DISTURBED SURFACE AREA" as used in this Article, means any portion of the earth's surface or material placed on the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural condition if the potential for the emission of fugitive dust is increased by the movement, destabilization, or modification.
- 8. "DUST CONTROL IMPLEMENT" as used in this Article, means a tool, machine, equipment, accessory, structure, enclosure, cover, material or supply, including an adequate readily available supply of water and its associated distribution/delivery system, used to control fugitive dust emission.
- 9. "DUST CONTROL PLAN" as used in this Article, means a written plan describing all control measures to be implemented and maintained in order to prevent or minimize the generation, emission, entrainment, suspension, and/or airborne transport of fugitive dust.
- 10. "DUST GENERATING OPERATION" as used in this Article, means any activity capable of generating fugitive dust, including but not limited to:
 - a) Earthmoving activities
 - b) Land clearing, maintenance, and land clean-up using mechanized equipment

- c) Land-leveling, excavating
- d) Weed abatement by discing or blading
- e) Construction
- f) Demolition
- g) Bulk material handling (i.e. bulk material hauling and/or transporting, bulk material stacking, loading, and unloading operations)
- h) storage and/or transporting operations (i.e. open storage piles)
- i) Operation of motorized machinery
- j) Operation of any outdoor equipment
- k) Establishing and/or using unpaved parking areas, material storage areas, staging areas, or access routes to and from a worksite
- Establishing and/or using unpaved haul/access roads to, from, and within a work site
- m) Disturbed surface areas associated with a worksite
- n) Installing initial landscapes using mechanized equipment

For the purpose of this rule, landscape maintenance and/or playing on a ball field shall not be considered a dust generating operation.

- 11. "DUST SUPPRESSANT" as used in this Article, means hygroscopic material, solution of water and chemical surfactant foam, non-toxic chemical stabilizer or any other dust palliative, which is not prohibited for ground surface application by the U. S. Environmental Protection Agency (EPA) or the Arizona Department of Environmental Quality (ADEQ), or any applicable law, rule, or regulation, as a treatment material for reducing fugitive dust emissions.
- 12. "EARTHMOVING OPERATION" as used in this Article, means the use of any equipment for an activity that may generate fugitive dust, such as but not limited to, the following activities:
 - a. Cutting and filling
 - b. Grading
 - c. Leveling
 - d. Excavating
 - e. Trenching
 - f. Loading or unloading of bulk materials
 - g. Demolishing
 - h. Blasting
 - i. Drilling
 - j. Adding bulk materials to or removing bulk materials from open storage piles
 - k. Back filling
 - 1. Soil mulching
 - m. Landfill operations
- 13. "EMERGENCY" as used in this Article means a situation arising from sudden and reasonably unforeseeable events beyond the control of the owner and/or operator, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the dust generating operation to exceed a limitation in this rule, due to unavoidable increases in emissions attributable to the emergency. An emergency

- shall not include any noncompliance due to improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.
- 14. "END OF WORKDAY" as used in this Article, the end of a working period that may include one or more work shifts. If working 24 hours a day, the end of a working period shall be considered no later than 8 pm.
- 15. "FREEBOARD" as used in this Article, means the vertical distance between the top edge of a cargo container and the highest point at which the bulk material contacts the sides, front, and back of the container.
- 16. "FUGITIVE DUST", as used in this Article, means the regulated particulate matter, which is not collected by a capture system, which is entrained in the ambient air, and which is caused from human and/or natural activities, such as but not limited to, movement of soils, vehicles, equipment, blasting, and wind. For the purpose of this Article, fugitive dust does not include particulate matter emitted directly from the exhaust of motor vehicles and other internal combustion engines, from portable brazing, soldering, or welding equipment, and from piledrivers.
- 17. "GRAVEL PAD" as used in this Article, means a layer of washed gravel, rock, or crushed rock that is at least one inch or larger in diameter, that is maintained at the point of intersection of an area accessible to the public and a work site exit to dislodge mud, dirt, and/or debris from the tire of the motor vehicles and/or haul trucks prior to leaving the work site. Minimum dimensions must be 30 feet wide by 3 inches deep and 50 feet long, or the length of the longest haul truck, whichever is greater. If an unpaved surface exit does not have adequate width to install a 30-foot wide gravel pad, then the width of the gravel pad must cover the full width of the unpaved surface exit and such shorter width must be adequate to prevent trackout.
- 18. "GRIZZLY" as used in this Article, means a device (i.e. rails, pipes, or grates) maintained at the point of intersection of a paved public roadway and a work site entrance to dislodge mud, dirt and/or debris from the tires of the motor vehicles or haul trucks prior to leaving the work site.
- 19. "HAUL TRUCK" as used in this Article, is any fully or partially open-bodied self-propelled vehicle including any non-motorized attachments, such as but not limited to, trailers or other conveyances, which are connected to or propelled by the actual motorized portion of the vehicle used for transporting bulk materials.
- 20. "HIGH WIND CONDITIONS" as used in this Article, instantaneous wind speeds exceed 25 miles per hour.
- 21. "MOTOR VEHICLE" as used in this Article, is a self-propelled vehicle for use on the public roads and highways of the State of Arizona and required to be registered under the Arizona State Uniform Motor Vehicle Act, including any non-motorized attachments, such as but not limited to, trailers and other conveyances which are connected to or propelled by the actual motorized portion of the vehicle.

- 22. "OFF-ROAD VEHICLE" as used in this Article, any self-propelled conveyance specifically designed for off-road use, including, but not limited to, off-road or all-terrain equipment, trucks, cars, motorcycles, motorbikes, or motorbuggies.
- 23. "OPEN STORAGE PILE" as used in this Article, any accumulation of bulk material with a 5% or greater silt content that has a total surface area of 150 square feet or more and that at any one point attains a height of three feet. Silt content shall be assumed to be 5% or greater unless a person can show, by testing in accordance with ASTM Method C136-06.
- 24. "OWNER AND/OR OPERATOR" as used in this Article, is any person including, but not limited to, the property owner, lessee, developer, responsible official, dust generating operation permit applicant (who may also be the responsible party contracting to do the work), general or prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust generating operation subject to the requirements of this rule.
- 25. "PAVE" as used in this Article, to apply and maintain asphalt, concrete, or other similar material to a roadway surface (i.e. asphaltic concrete, concrete pavement, chip seal, or rubberized asphalt).
- 26. "PAVED PUBLIC ROADWAY" means a publicly owned paved roadway, owned by federal, state, county, municipal, or other governmental or quasi-governmental agencies as evidenced by a formal acceptance by the state or a political subdivision of the state of either:
 - 1. An on-going maintenance obligation for the roadway; or
 - 2. A title or easement for the roadway.
- 27. "PINAL COUNTY DUST CONTROL FORECAST" means a forecast, which shall identify a low, moderate or high risk of dust generation for the next five consecutive days and shall be issued by noon on each day the forecast is generated. When developing these forecasts, the Department of Environmental Quality shall consider all of the following:
 - a) Projected meteorological conditions, including:
 - i) Wind speed and direction,
 - ii) Stagnation,
 - iii) Recent precipitation, and
 - iv) Potential for precipitation;
 - b) Existing concentrations of air pollution at the time of the forecast; and
 - Historic air pollution concentrations that have been observed during meteorological conditions similar to those that are predicted to occur in the forecast.
- 28. "PROPERTY LINE" as used in this Article, the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) shall refer to the boundaries dividing the areas of all sub-tenancies.
- 29. "ROAD CONSTRUCTION" as used in this Article, means the use of any equipment for the paving or new construction of a road surface, street or highway.

- 30. "ROAD MAINTENANCE" as used in this Article, means the use of any equipment for the repair and preservation of an old road surface, street or highway.
- 31. "ROUTINE" as used in this Article, Any dust-generating operation which occurs more than 4 times per year or lasts 30 cumulative days or more per year.
- 32. "SILT" as used in this Article, Any aggregate material with a particle size less than 75 micrometers in diameter, which passes through a No. 200 sieve.
- 33. "STABILIZE" means any previously disturbed surface area which, through application of water or dust suppressants, shows visual or other evidence of surface crusting and is resistant to wind-driven fugitive dust. Stabilization shall be demonstrated by application of the drop ball test in Article 9 (§4-9-320.B.1).
- 34. "TRACKOUT/CARRYOUT" As used in this Article, any and all bulk materials that adhere to and agglomerate on the surfaces of motor vehicles, haul trucks, and/or equipment (including tires) and that have fallen or been deposited onto an area accessible to the public..
- 35. "TRACKOUT CONTROL DEVICE" as used in this Article, means a gravel pad, grizzly, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and an area accessible to the public that controls or prevents vehicular trackout.
- 36. "TRENCH" as used in this Article, means a long, narrow excavation dug in the earth (as for drainage).
- 37. "UNPAVED HAUL/ACCESS ROAD" as used in this Article, means any on-site unpaved road used by commercial, industrial, institutional, and/or governmental traffic.
- 38. "UNPAVED PARKING LOT" as used in this Article, means any area larger than 5,000 square feet that is not paved and that is used for parking, maneuvering, or storing motor vehicles on a work site.
- 39. "UNPAVED ROAD" as used in this Article, means any unsealed or unpaved roads, equipment path, or travel ways that are not covered by typical roadway materials. Public unpaved roads are any unpaved roadway owned by federal, state, county, municipal, or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public. For the purpose of this rule, an unpaved road is not a horse trail, hiking path, bicycle path, or other similar path used exclusively for purposes other than travel by motor vehicles.
- 40. "WIND-BLOWN DUST" as used in this Article, means visible emissions, from any disturbed surface area, that are generated by wind action alone.
- 41. "WORK SITE" as used in this Article, means any property upon which dust generating operations occur during construction, and which covers an area of 0.1 acres or larger.
 - a. Trenches that are equal to or larger than the following dimensions are considered work sites and are subject to the requirement of this Article:
 - i. Trenches less than four feet in depth, that exceed a length of 726 feet;

- ii. Trenches that are four feet or greater in depth, that exceed a length of 363 feet:
- b. For calculations of disturbed surface areas for land clearing or earthmoving activities, 25 feet will be added to each dimension of all structures, driveways, concrete pads, and other construction projects being built on the site to allow for an equipment utilization zone. If this final figure equals or exceeds 0.1 acres, a dust generating operation application is required for the site.
- c. If the registrant identifies situations in which the amount of surface area for trenches, land clearing or earthmoving activities should be calculated differently, a case-by-case determination may be made.

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4-3-180. DUST GENERATING OPERATIONS Standards, Application, Permit, Recordkeeping and Training Requirements

A. PERMIT REQUIREMENTS FOR DUST-GENERATING OPERATIONS:

- 1. No person shall commence construction of, operate, or make a modification to any dust-generating operation when such dust-generating operations disturb a total surface area of 0.10 acre (4,356 square feet) or more without first obtaining a permit or permit revision from the Control Officer.
- 2. No person shall commence construction of, operate, or make a modification to any dust-generating operation that disturbs a total surface area of less than 0.10 acre (4,356 square feet) under common control that are either contiguous or separated only by a public or private roadway and that cumulatively equal or exceed 0.10 acre in area without first obtaining a permit or permit revision from the Control Officer.
- 3. No person shall commence any routine dust-generating operation that disturbs a surface area of 0.10 acre or greater at a site that has obtained or must obtain a Title V, Non-Title V, or General Permit without first submitting to the Control Officer a Dust Control Plan.
- 4. The property owner, lessee, developer, responsible official, Dust Control permit applicant (who may also be the responsible party contracting to do the work), general contractor, prime contractor, supervisor, management company, or any person who owns, leases, operates, controls, or supervises a dust-generating operation subject to the requirements of this rule shall be responsible for obtaining a permit or permit revision from the Control Officer.
- 5. All permit applications shall be filed in the manner and form prescribed by the Control Officer, which includes, but is not limited to, the Administrative requirements in this rule. The application shall contain all of the information necessary to enable the Control Officer to make the determination to grant or to deny a permit or permit revision, which shall contain such terms and conditions as the Control Officer deems necessary to assure a source's compliance with the requirements of this rule.

- 6. The issuance of any permit or permit revision shall not relieve any person subject to the requirements of this rule from compliance with any Federal laws, Arizona laws, or these rules.
- 7. Any other law, regulation or permit shall not relieve any person from obtaining a permit or permit revision required under this rule.

B. ADMINISTRATIVE REQUIREMENTS - DUST CONTROL APPLICATION AND PERMIT REQUIREMENTS

- 1. To apply for a Dust Control permit, an applicant shall complete a permit application in the manner and form prescribed by the Control Officer. At a minimum, such application shall contain the following information:
 - a. Applicant information including cell phone and email address;
 - b. Project information, which shall include a project site drawing and
 - c. Dust Control Plan, which shall meet the specifications described in subsection C below.

2. Annual Area Block Permit Application:

- a. The owner and/or operator operating at the work site may submit to the Control Officer one dust generating operation application for more than one dust generating operations at which construction will commence within 12 months of permit issuance.
- b. An annual block permit application must include all of the requirements in subsections B and C of this section, including a description of each site and type of dust generating operations to be conducted.
- c. For any project not listed in the dust generating operation annual block application, the applicant must notify the Control Officer in writing at least three working days prior to commencing the dust generating operation. Such notification must include the site location, size, and type of dust generating operation, selected control measures, and start date.
- 3. A Dust Control permit shall be granted subject to, but not limited to, the following conditions:
 - a. The permittee shall be responsible for ensuring that all persons abide by the conditions of the Dust Control permit and these regulations;
 - b. The permittee shall be responsible for supplying complete copies of the Dust Control permit including Dust Control Plan, to all project contractors and subcontractors;
 - c. The permittee shall be responsible for all permit conditions, until a Permit Cancellation Request form has been submitted by the owner and/or operator and approved by the Control Officer.
 - d. The permittee shall be responsible for providing Dust Control Coordinator's/Coordinator's name(s) and dust control training certification information/number(s) to the Control Officer and for keeping such information updated.

- 4. The signature of the permittee on the Dust Control permit application shall constitute agreement to accept responsibility for meeting the conditions of the Dust Control permit and for ensuring that control measures are implemented throughout the project site and during the duration of the project.
- 5. Permit Renewal: The first permit obtained for an affected project must cover a contiguous area (unless it is an "annual area block permit") and is valid for one year from the date of issue. If the project has not been completed at the end of the one-year period, the dust generating operation permit must be renewed. The owner and/or operator shall reapply for a dust generating operation permit prior to the expiration date of the original permit. Upon renewal, the new permit will be valid starting on the first calendar day after the completion of the initial one year period of the first permit and is valid for one year from that date. Upon renewal, the total acreage covered by the dust generating operation permit does not have to be contiguous, although all acreage covered by the renewed dust generating operation permit must have been included in the original dust generating operation permit.

C. ADMINISTRATIVE REQUIREMENTS - DUST CONTROL PLAN REQUIREMENTS

- 1. The owner and/or operator of a dust-generating operation shall submit to the Control Officer a Dust Control Plan with any permit application including both of the following situations:
 - a. When submitting an application for a Dust Control permit involving dustgenerating operations that would equal or exceed 0.10 acre (4,356 square feet), and
 - b. Before commencing any routine dust-generating operation at a site with a disturbed surface area that equals or exceeds 0.10 acre (4,356 square feet) that has obtained or must obtain a Title V, Non-Title V, or General permit
- 2. The owner and/or operator of a dust-generating operation shall describe in a Dust Control Plan, all control measures to be implemented before, after, and while conducting any dust-generating operation, including during weekends, after work hours, and on holidays.
- 3. A Dust Control Plan shall, at a minimum, contain all of the following information:
 - a. Name(s), address(es), and phone numbers of person(s) responsible for the submittal and implementation of the Dust Control Plan and responsible for the dust-generating operation.
 - b. A drawing, on 8 ½" x 11" paper that shows:
 - i. Entire project site/facility boundaries, including boundaries of areas to be disturbed if less than entire project site/facility boundaries,

- ii. Acres to be disturbed with linear dimensions or certification by a licensed engineer or surveyor showing the total square footage to be disturbed.
- iii. Nearest public roads,
- iv. North arrow,
- v. Planned exit locations onto areas accessible to the public, and
- vi. Unpaved parking lot(s).
- c. For projects with multiple parcels, a list of parcel number(s). If only a mother/master parcel number is available at the time of the application and Dust control plan submittal, once the full parcel list is available the owner and/or operator shall provide the full parcel list to Pinal County Air Quality within 3 business days.
- d. Appropriate control measures, or a combination thereof, as described in §4-3-180.I of this rule, for every actual and potential dust-generating operation.
 - i. Control measures must be implemented before, during and after conducting any dust-generating operation, including during weekends, after work hours, and on holidays.
 - ii. All required control measures and at least one contingency control measure must be identified for all dust-generating operations.
 - iii. If complying with §4-3-180.I of this rule, the Dust Control Plan must include the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks).
- e. Dust suppressants to be applied, including all of the following product specifications or label instructions for approved usage:
 - i. Method, frequency, and intensity of application;
 - ii. Type, number, and capacity of application equipment; and
 - iii. Information on environmental impacts and approvals or certifications related to appropriate and safe use for ground application.
- f. Specific surface treatment(s) and/or control measures utilized to control material trackout and sedimentation where unpaved roads and/or access points to join areas accessible to the public.
- g. For construction projects, except for routine maintenance and repair done under a Dust Control Block Permit, an acknowledgement that the minimum water listed in tables 1 and 2 below are available onsite, depending on the total acreage disturbed and project phase.
- 4. The Control Officer shall approve, disapprove, or conditionally approve the Dust Control Plan, in accordance with the criteria used to approve, disapprove or conditionally approve a permit, as described in §4-3-180.A.

Table 1: Project Phase - Site Clearing/Removal of Vegetation/Debris/Demolition

Total Acres Disturbed	Minimum Water Available onsite
0.1 to 1 acre	300-600 gallons per day
1 to 10 acres	600-3,000 gallons per day
10 to 100 acres	3,000-30,000 gallons per day
> 100 acres	> 30,000 gallons per day

Table 2: Project Phase - Mass Grading

Minimum Water Available onsite	Minimum Water Available onsite
(November - February)	(March - October)
5,000 gallons per acre per day	10,000 gallons per acre per day
and	and
30 gallons per cubic yard of material moved	30 gallons per cubic yard of material moved

D. RECORDKEEPING REQUIREMENTS:

- Any person who conducts dust-generating operations that require a Dust Control Plan shall keep a written record of self-inspection on each day dust-generating operations are conducted. Self-inspection records shall include daily inspections for crusted or damp soil, trackout conditions and clean-up measures, daily water usage for dust control measures, and dust suppressant application. Such written records shall also include the following information:
 - a. Method, frequency, and intensity of application or implementation of the control measures;
 - b. Method, frequency, and amount of water application to the site;
 - c. Street sweeping frequency;
 - d. Types of surface treatments applied to and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps;
 - e. Types and results of test methods conducted;
 - f. If contingency control measures are implemented, actual application or implementation of contingency control measures and why contingency control measures were implemented;
 - g. Names of employee(s) who successfully completed dust control training class(es) required by 4-3-180.F and G of this rule, date of the class(es) that such employee(s) successfully completed, and name of the agency/representative who conducted such class(es).
- 2. Any person who conducts dust-generating operations that do not require a Dust Control Plan shall compile and retain records (including records on any street sweeping, water applications, and maintenance of trackout control devices, gravel pads, fences, wind barriers, and tarps) that provide evidence of control measure application, by indicating the type of treatment or control measure, extent of coverage, and date applied.
- 3. Upon verbal or written request by the Control Officer, the log or the records and supporting documentation shall be provided as soon as possible but no later than 48

- hours, excluding weekends. If the Control Officer is at the site where requested records are kept, records shall be provided without delay.
- 4. Owner and/or Operators shall notify the Control Officer as soon as practicable, but no later than 30 days after the completion of the project.
- 5. Any person who conducts dust-generating operations that require a Dust Control Plan shall retain copies of approved Dust Control Plans, control measures implementation records, and all supporting documentation for at least six months following the termination of the dust-generating operation and for at least two years from the date such records were initiated. If a person has obtained a Title V permit and is subject to the requirements of this rule, then such person shall retain records required by this rule for at least five years from the date such records are established.

E. PROJECT INFORMATION SIGN FOR DUST-GENERATING OPERATIONS:

- 1. For all sites with a Dust Control permit that are five acres or larger, except for routine maintenance and repair done under a Dust Control Block permit, the owner and/or operator shall erect and maintain a project information sign at the main entrance such that members of the public can easily view and read the sign at all times. Such sign shall have a white background, have black block lettering that is at least four inches high, and shall contain at least all of the following information:
 - a. Project name and permittee's name;
 - b. Current dust control permit number;
 - c. Name and local phone number of person(s) responsible for dust control matters;
 - d. Text on the sign stating: "Dust complaints? Call Pinal County Air Quality at (insert the accurate Pinal County Air Quality complaint line telephone number)."

F. BASIC DUST CONTROL TRAINING FOR DUST-GENERATING OPERATIONS:

- 1. At least once every three years, the following persons present at a site that is subject to a permit issued by the Control Officer requiring control of PM10 emissions from dust-generating operations shall successfully complete a Basic Dust Control Training Class conducted or approved by the Control Officer:
 - a. Water truck drivers
 - b. water-pull drivers
 - c. The site superintendent or other designated on-site representative of the permit holder, if present at a site that has more than one acre of disturbed area
- 2. A Dust Control Block Permit permittee/holder shall have, at a minimum, one individual trained in accordance with the Basic Dust Control Training Class as specified in section F.1 above, if present at a site that has more than one acre of disturbed surface area.
- 3. The Control Officer may suspend or revoke for cause including, but not limited to, inappropriate ethical activities or conduct associated with the dust control program or repeated failure to follow the training requirements, a certification issued to a person having successfully completed a Basic Dust Control Training Class conducted or

approved by the Control Officer. The Control Officer will provide written notification to such person regarding such suspension or revocation.

G. COMPREHENSIVE DUST CONTROL TRAINING FOR DUST-GENERATING OPERATIONS:

- 1. At least once every three years, the Dust Control Coordinator, who meets the requirements of the Dust Control Coordinator section in this rule, shall successfully complete the Comprehensive Dust Control Training Class conducted or approved by the Control Officer.
- 2. The Control Officer may suspend or revoke for cause including, but not limited to, inappropriate ethical activities or conduct associated with the dust control program or repeated failure to follow the training requirements, a certification issued to a person having successfully completed a Comprehensive Dust Control Training Class conducted or approved by the Control Officer. The Control Officer will provide written notification to such person regarding such suspension or revocation.

H. DUST CONTROL COORDINATOR FOR DUST-GENERATING OPERATIONS:

- 1. The permittee for any site of five acres or more of disturbed surface area subject to a permit issued by the Control Officer requiring control of PM10 emissions from dust-generating operations shall have on-site at least one Dust Control Coordinator trained in accordance with the comprehensive dust control training requirements in subsection G above at all times during primary dust-generating operations related to the purposes for which the Dust Control permit was obtained.
- 2. The Dust Control Coordinator shall have full authority to ensure that dust control measures are implemented on-site, including conducting inspections, deployment of dust suppression resources, and modifications or shut-down of activities as needed to control dust.
- 3. The Dust Control Coordinator shall be responsible for managing dust prevention and dust control on the site.
- 4. At least once every three years, the Dust Control Coordinator shall successfully complete a Comprehensive Dust Control Training Class conducted or approved by the Control Officer.
- 5. The Dust Control Coordinator shall have a valid dust training certification identification card readily accessible on-site while acting as a Dust Control Coordinator.
- 6. The requirement for a Dust Control Coordinator shall lapse when all of the following actions/events/procedures occur:
 - a. The area of disturbed surface area becomes less than five acres;

- b. The previously disturbed surface areas have been stabilized in accordance with/in compliance with the standards and/or requirements of this rule; and
- c. The Dust Control permit holder provides notice to the Control Officer of acreage stabilization.
- 7. The Dust Control Block Permit permittee/holder shall have on sites that have more than one acre of disturbed surface area at least one individual, who has been trained in accordance with the requirements of subsection F.2 above. One such individual shall be designated by the Dust Control Block Permit permittee/holder as the Dust Control Coordinator. The Dust Control Coordinator shall be present on-site at all times during primary dust-generating activities that are related to the purposes for which the permit was obtained.

I. CONTROL MEASURES:

- 1. CONTROL MEASURES IMPLEMENTATION: When engaged in a dust-generating operation, the owner and/or operator shall install, maintain, and use control measures, as applicable. Control measures for specific dust-generating operations are described in Sections §4-3-180.I.2.a through §4-3-180.I.2.i of this rule. The owner and/or operator of a dust-generating operation shall implement control measures before, after, and while conducting dust-generating operations, including during weekends, after work hours, and on holidays. At least one primary control measure and one contingency control measure must be identified in the Dust Control Plan for all dust-generating sources.
 - a. All control measures that are necessary to maintain soil stability shall be implemented twenty four (24) hours a day, seven (7) days a week, until the permit is closed.
 - b. In the event there are high wind conditions that cause fugitive dust emissions in excess of any of following opacity standards listed below, in spite of the use of control measures, all construction activities that may contribute to these emissions shall immediately cease. Water trucks and water pulls shall continue to operate under these circumstances, unless wind conditions are such that the continued operation of watering equipment cannot reduce fugitive dust emissions or that continued equipment operation poses a safety hazard.
 - i. 20% opacity using the time averaged method (insert code reference) or intermittent emissions method (insert code reference) defined in Chapter 4. Article 9 or
 - ii. One hundred (100) yards in length from the point of origin

2. CONTROL MEASURE REQUIREMENTS FOR DUST-GENERATING OPERATIONS:

- a. Active areas control measures: The owner and/or operator of any disturbed surface area where activity is occurring shall do the following:
 - i. High wind control measure (wind barrier): For each non-linear project to be permitted install perimeter wind barrier 3 feet or more in height

- made of material with a porosity of 50% or less or install block wall around the perimeter of the worksite.
- ii. Limit vehicle traffic and disturbance of soils with the use of fencing, barriers, barricades, and/or wind barriers.
- iii. Stabilize and maintain stability of all disturbed soils throughout the worksite by doing one or more of the following:
 - a. Apply water to stabilize disturbed soils. Soils must be kept in a sufficiently damp, crusted or covered condition.
 - b. Apply dust suppressant in sufficient quantity and frequency to maintain a stabilized surface.
- b. Demolition Mechanical/Manual: The owner and/or operator of a dust generating operation that involves demolition shall do the following:
 - i. Stabilize surface soils where support equipment and vehicles will operate by doing one of the following:
 - a. Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.
 - b. Apply and maintain a dust palliative to surface soils where support equipment and vehicles will operate.
 - c. Area where support equipment and vehicles will operate is completely covered with paving or concrete.
 - ii. Stabilize demolition debris during handling by applying water to demolition debris by doing one of the following:
 - a. Apply water to stabilize demolition debris.
 - b. Apply a dust palliative to stabilize demolition debris.
 - iii. Stabilize surrounding area following demolition by doing one of the following:
 - a. Apply water to stabilize surrounding area following demolition
 - b. Apply and maintain a dust palliative to stabilize surrounding area following demolition.
- c. Weed abatement by discing or blading: The owner and/or operator of a dust generating operation that involves weed abatement by discing or blading shall comply with all of the following control measures:
 - i. Before weed abatement by discing or blading occurs, apply water;
 - ii. While weed abatement by discing or blading is occuring, apply water; and
 - iii. After weed abatement by discing or blading occurs, pave, apply gravel, apply water, apply a suitable dust suppressant other than water, or establish vegetative ground cover.

- d. Backfilling: The owner and/or operator of a dust generating operation that involves backfilling activities associated with areas previously excavated or trenched shall comply with the following control measures:
 - i. Stabilize backfill material when not actively handling by doing one of the following:
 - a. Water backfill material to maintain moisture or to form crust when not actively handling.
 - b. Apply and maintain a dust palliative to backfill material to form crust when not actively handling.
 - c. Cover or enclose backfill material when not actively handling.
 - ii. Stabilize backfill material during handling by doing both of the following:
 - a. Empty loader bucket slowly and minimize drop height from loader bucket, and
 - b. Dedicate water truck or large hose to backfilling equipment and apply water as needed.
 - iii. Stabilize soil at completion of backfilling activity by doing one of the following:
 - a. Apply water and maintain disturbed soils in a stable condition until permanent stabilization is complete.
 - b. Apply and maintain a dust palliative on disturbed soils to form a crust following backfilling activity.
- e. Clearing and Grubbing (site preparation and vacant land cleanup): The owner and/or operator of a dust generating operation that involves clearing and grubbing shall comply with the following control measures:
 - i. Stabilize surface soils where support equipment and vehicles will operate by doing one of the following:
 - a. Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.
 - b. Apply and maintain a dust palliative on surface soils where support equipment and vehicles will operate
 - ii. Stabilize soils during clearing and grubbing activities by applying water.
 - iii. Stabilize disturbed soils immediately after clearing and grubbing activities by doing one of the following:
 - a. Water disturbed soils to form crust immediately following clearing and grubbing activities.
 - b. Apply and maintain a dust palliative on disturbed soils to form crust immediately following clearing and grubbing activities.

- f. Clearing forms, foundations and slabs: The owner and/or operator of a dust generating operation that involves clearing forms, foundations and/or slabs shall comply with the following opacity standard and control measures:
 - i. Limit visible emissions associated with clearing forms, foundations and/or slabs to no more than an average of 20% opacity for any period aggregating 3 minutes in any 60-minute period pursuant to the test method in §4-9-340.C.
 - ii. Use single stage pours, unless prohibited by engineering design or building code, to minimize clearing, and
 - iii. Use at least one of the following control measures:
 - a. Use water spray to clear forms, foundations and slabs
 - b. Use sweeping and water spray to clear forms, foundations and slabs
 - c. Use industrial vacuum to clear forms, foundations and slabs prior to the use of high pressure air to blow soil and debris
 - d. Use industrial vacuum to clear forms, foundations and slabs
- g. Cut and fill (site grade preparation): The owner and/or operator of a dust generating operation that involves cut and fill activities associated with site grade preparation shall comply with the following:
 - i. Stabilize surface soils where support equipment and vehicles will operate by doing one of the following:
 - a. Pre-water and maintain surface soils in a stabilized condition where support equipment and vehicles will operate.
 - b. Apply and maintain a dust palliative to surface soils where support equipment and vehicles will operate.
 - ii. Pre-water soils prior to cut and fill activities by doing the following:
 - a. Pre-water with sprinklers, wobblers, water pulls and/or water trucks to allow time for penetration. To determine if soils are moist to depth of cut, dig a test hole to depth of cut or equipment penetration. Continue to pre-water if not moist to the depth of cut.
 - iii. Stabilize soils during cut activities by doing the following:
 - a. Apply water, using water truck or water pull, to depth of cut prior to subsequent cuts.
 - b. Conduct fill only without continuing cutting operations, until soil is moist to depth of cut.
 - iv. Stabilize soil after cut and fill activities by doing one of the following:
 - a. Water disturbed soils to form crust following fill and compaction.
 - b. Apply and maintain a dust palliative on disturbed soils to form crust following fill and compaction.

- h. Trenching (with track or wheel mounted excavator, shovel, backhoe or trencher): The owner and/or operator of a dust generating operation that involves trenching shall comply with the following:
 - i. Stabilize surface soils where trenching equipment, support equipment and vehicles will operate by doing one of the following:
 - a. Pre-water and maintain surface soils in a stabilized condition where trenching equipment, support equipment and vehicles will operate.
 - b. Apply and maintain a dust palliative to surface soils where trenching equipment, support equipment and vehicles will operate.
 - ii. Presoak soils prior to trenching activities by pre-watering surface and soaking trench depth down to 18".
 - iii. Stabilize soils during trenching activities by using a dedicated water truck or large hose and maintaining water on trench and soil windrow as it is formed in order to prevent dust.
 - iv. Stabilize soils at the completion of trenching activities by doing one of the following:
 - a. Use water to form crust on excavated soil.
 - b. Use dust palliative to form crust on excavated soil.
- i. Paving/Subgrade Preparation (subgrade preparation for paving streets, parking lots, etc.): The owner and/or operator of a dust generating operation that involves pavings/subgrade operations shall comply with the following:
 - i. Stabilize soils prior to and during paving/subgrade activities by prewatering and watering subgrade surface in order to reach and maintain the subgrade surface in a stable condition.
 - ii. Stabilize soils following paving/subgrade preparation activities by doing one of the following:
 - a. Place tack coat (an asphaltic material applied as a binder to base aggregate materials prior to the placement of asphalt during road construction) on base aggregate immediately after it is applied.
 - b. Apply water to base aggregate immediately after it is applied.
 - iii. Stabilize adjacent disturbed soils following paving activities by doing one of the following:
 - a. Stabilize adjacent disturbed soils following paving activities by crusting with water.
 - b. Stabilize adjacent disturbed soils following paving activities by applying a dust palliative.
 - c. Stabilize adjacent disturbed soils following paving activities with immediate landscaping activity or installation of vegetative or rock cover.

d. There are no soils adjacent to paving activities.

J. STABILIZATION REQUIREMENTS FOR DUST-GENERATING OPERATIONS:

1. Unpaved Parking Lot: The owner and/or operator of any unpaved parking lot shall not allow silt loading equal to or greater than 0.33 oz/ft2. However, if silt loading is equal to or greater than 0.33 oz/ft2, then the owner and/or operator shall not allow the silt content to exceed 8%.

2. Unpaved Haul/Access Road/Staging Areas:

- i. The owner and/or operator of any unpaved haul/access road/staging areas (whether at a work site that is under construction or at a work site that is temporarily or permanently inactive) shall not allow silt loading equal to or greater than 0.33 oz/ft2. However, if silt loading is equal to or greater than 0.33 oz/ft2, then the owner and/or operator shall not allow the silt content to exceed 6%.
- ii. The owner and/or operator of any unpaved haul/access road/staging areas (whether at a work site that is under construction or a work site that is temporarily or permanently inactive) shall, as an alternative to meeting the stabilization requirements for an unpaved haul/access road in section §4-3-180.J.2.i of this rule, limit vehicle trips to no more than 20 per day per road and limit vehicle speeds to no more than 15 miles per hour. If complying with this section of this rule, the owner and/or operator must include, in a Dust Control Plan, the maximum number of vehicle trips on the unpaved haul/access roads each day (including number of employee vehicles, earthmoving equipment, haul trucks, and water trucks) and a description of how vehicle speeds will be restricted to no more than 15 miles per hour.

3. Disturbed surface area:

Inactive areas stabilization requirements: The owner and/or operator of any i. disturbed surface area on which no activity is occurring (whether at a work site that is under construction or a work site that is temporarily or permanently inactive) shall meet at least one of the standards described in Section §4-3-180.J.3.i.a through §4-3-180.J.3.i.g below, as applicable. Should such a disturbed surface area contain more than one type of stabilization characteristic, such as soil, vegetation, or other characteristic, which is visibly distinguishable, then the owner and/or operator shall test each representative surface separately for stability, in an area that represents a random portion of the overall disturbed conditions of the site, in accordance with the appropriate test methods described in Chapter 4, Article 9. The owner and/or operator of such disturbed surface area on which no activity is occurring shall be considered in violation of this rule if the area is not maintained in a manner that meets at least one of the standards listed below, as applicable. An area is considered to be a disturbed surface area until the activity that caused the disturbance has been completed and the disturbed surface area meets the standards described below.

a. Maintain a soil crust;

- b. Maintain a threshold friction velocity (TFV) for disturbed surface areas corrected for non-erodible elements of 100 cms/second or higher;
- c. Maintain a flat vegetative cover (i.e. attached [rooted] vegetation or unattached vegetative debris lying on the surface with a predominant horizontal orientation that is not subject to movement by wind) that is equal to at least 50%;
- d. Maintain a standing vegetative cover (i.e. vegetation that is attached [rooted] with a predominant vertical orientation) that is equal to or greater than 30%;
- e. Maintain a standing vegetative cover (i.e. vegetation that is attached [rooted] with a predominant vertical orientation) that is equal to or greater than 10% and where the threshold friction velocity is equal to or greater than 43 cm/second when corrected for non-erodible elements:
- f. Maintain a percent cover that is equal to or greater than 10% for non-erodible elements; or

K. VISIBLE EMISSIONS REQUIREMENTS FOR DUST-GENERATING OPERATIONS:

- 1. The owner and/or operator Shall not conduct or allow dust generating operations that result in opacity of the dust on the property to exceed twenty percent (20%) as measured using an opacity method, as determined by the applicable test method in §4-9-340.
- 2. The owner and/or operator of a dust-generating operation shall not cause or allow visible emissions of particulate matter, including fugitive dust, beyond the property line within which the emissions are generated. Visible emissions shall be determined by a standard of no visible emissions exceeding 30 seconds in duration in any sixminute period as determined by using EPA Reference Method 22.
- L. TRACKOUT, CARRY-OUT, SPILLAGE, AND/OR EROSION: The owner and/or operator of a dust generating operation shall prevent and control trackout, carry-out, spillage, and/or erosion.
 - 1. Criterion Trackout Control Device: Install, maintain and use a suitable trackout control device prior to the start of dust generating operations in order to prevent and control trackout and/or removal of particulate matter from tires and the exterior surfaces of haul trucks and/or motor vehicles that traverse the site at all exits onto areas accessible to the public from both of the following:
 - i. All work sites with a disturbed surface area of two acres or larger, and
 - ii. All work sites where 100 cubic yards of bulk materials are hauled on-site and/or off-site per day.

- 2. Control Measures for Trackout Control Device: For those work sites identified in §4-3-180.L.1 of this rule, prevent trackout, carry-out, spillage, and/or erosion by implementing one of the following control measures:
 - i. At all exits onto areas accessible to the public, install a wheel wash system;
 - ii. At all exits onto areas accessible to the public, install a gravel pad to comply with the gravel pad requirement in §4-3-170;
 - iii. At all exits onto areas accessible to the public, install a grizzly or rumble grate that consists of raided dividers (rails, pipes, or grates) a minimum of three inches tall, six inches apart, and 20 feet long, to allow a vibration to be produced such that dust is shaken off the wheels of a vehicle as the entire circumference of each wheel of the vehicle passes over the grizzly or rumble grate; or
 - iv. Pave starting from the point of the intersection with an area accessible to the public and extending for a centerline distance of at least 100 feet and a width of at least 20 feet.
- 3. Criterion for clean up of trackout: Clean up trackout, carry-out, spillage, and/or erosion from areas accessible to the public including curbs, gutters, and sidewalks, on the following time-schedule:
 - i. Immediately when trackout, carry-out, or spillage extends a cumulative distance of 25 linear feet or more; and
 - ii. At the end of the workday for all other trackout, carry-out, spillage, and/or erosion.
- 4. Control Measures for clean up of trackout:
 - i. Operate a street sweeper or wet broom with sufficient water, or including but not limited to kick broom, steel bristle broom, teflon broom, vacuum, at the speed recommended by the manufacturer and at the frequency(ies) described in this section of this rule; or
 - ii. Manually sweep up deposits to comply with this section of this rule.

M. DELAYED DUST GENERATING OPERATIONS:

1. For areas, or portions of areas, in which the dust generating operations have ceased or will cease for more than 30 days, the owner and/or operator shall erect signs and install physical barriers to limit trespass.

N. HIGH RISK FORECAST:

- 1. The owner and/or operator shall ensure the work site is stabilized the day leading up to and the day that is forecast to be high risk for dust emissions, as noticed by the Pinal County Dust Control Forecast. Ensuring the work site is stabilized shall include a site-wide inspection to ensure either:
 - i. All applicable control measures as specified in the permit, are implemented on dust generating operations, and disturbed surface areas are stabilized; or

ii. All dust generating operations are ceased and disturbed surface areas are stabilized.

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4-3-190. Rescinded

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